

In the Claims:

Please amend claim 4 as follows:

4. (Amended) [An] The apparatus as defined in claim 2 [or 3], **characterised** in that it comprises a substantially hemispherical chamber, the end of the evaporator tube arrangement forming the plane side thereof.

A clean copy of claim 4 amended is as follows:

4. (Amended) The apparatus as defined in claim 2, **characterised** in that it comprises a substantially hemispherical chamber, the end of the evaporator tube arrangement forming the plane side thereof.

Please add new claims 5-10 as follows:

5. The apparatus as defined in claim 3, **characterised** in that it comprises a substantially hemispherical chamber, the end of the evaporator tube arrangement forming the plane side thereof.

6. A method of feeding water to heat transfer surfaces of a falling film evaporator having vertical evaporation channels, the method comprising:  
spraying drops of water with absorbed atmospheric gases to distribute the water over upper ends of the vertical evaporation channels;  
simultaneously with the spraying, separating the atmospheric gases from the water.

7. The method as defined in claim 6 further including:

A<sup>2</sup> SUB B  
A<sup>3</sup> SUB B

collecting the sprayed droplets into a layer of  
water above the upper ends of the vertical evaporation  
5 channels;

separating additional atmospheric gases from the  
water layer;

feeding water from the water layer into the  
upper ends of the vertical evaporation channels.

8. An apparatus for removing dissolved  
atmospheric gases from water, the apparatus comprising:  
a falling film evaporator which includes a  
plurality of vertical evaporating channels, the vertical  
5 evaporating channels having upper ends arranged in an  
evaporator channel upper end arrangement;

at least one spraying device which breaks the  
water into a spray of droplets having a spray pattern  
which corresponds to an area of the vertical evaporating  
10 channel upper end arrangement; and

at least one dissolved gas outlet for removal of  
the gases separated from the droplets.

9. The apparatus as set forth in claim 8  
wherein the vertical evaporating channel upper end  
arrangement is confined to a circular area and further  
including a hemispherical chamber mounted to the vertical  
5 evaporating channel upper end arrangement, the spraying  
device being mounted to the hemispherical chamber such  
that the spray of droplets is confined within the  
hemispherical chamber.

10. The apparatus as defined in claim 8 further  
including:

a perforated plate mounted above and separated  
from the evaporator channel upper end arrangement, the  
5 spray of droplets being sprayed onto the plate, the water  
passing through perforations in the plate to the  
evaporator channel upper ends.